

## **CLAIMS**

1. A method of applying a marker element to an implant intended for implantation in a human or an animal body, said implant comprising a main body and an opening provided in said main body for receiving the marker element, comprising the steps of:  
introducing a hardenable material or material mix into the opening and  
hardening the hardenable material or material mix therein to form at least a part of the marker element.
2. The method of claim 1, wherein the material or material mix is flowable or pourable.
3. The method of claim 2, wherein the material or material mix is a sinterable granular material or powder.
4. The method of claim 2, wherein the material or material mix is joined and in particular welded to the material of the main body during the hardening step.
5. The method of claim 1, wherein the hardening step includes an endothermic step and at least a part of the process energy in the endothermic step is introduced locally in the region of the opening.
6. The method of claim 5, wherein at least a part of the process energy in the endothermic step is introduced by targeted irradiation in the region of the opening, in particular with laser radiation.
7. The method of claim 5, wherein at least a part of the process energy in the endothermic step is introduced by ultrasound.
8. The method of claim 1, wherein the hardening step includes an endothermic step and at least a part of the process energy in the endothermic step is introduced electrically by producing a flow of current through the material or material mix arranged in the region of the opening.

9. The method of claim 1, wherein both the introducing step and the hardening step are effected by galvanic deposit.
10. The method of claim 1, wherein the material or material mix is cold-setting.
11. An implant for implantation in a human or an animal body comprising a main body, at least one opening in said main body and a marker element arranged in said opening, characterised in that the marker element comprises a hardenable material or material mix which is introduced into the opening and hardened therein.
12. The implant of claim 11, wherein the marker element comprises a flowable or pourable material or material mix which is introduced into the opening and hardened therein.
13. The implant of claim 12, wherein the material or material mix is sinterable and is hardened in the opening by sintering.
14. The implant of claim 11, wherein the marker element is joined and in particular welded to the material of the main body by the hardening process.
15. The implant of claim 11, wherein the opening and/or the marker element and/or the arrangement thereof with respect to the main body identify at least one property of the implant.
16. The method of claim 3, wherein the material or material mix is joined and in particular welded to the material of the main body during the hardening step.
17. The method of claim 2, wherein the hardening step includes an endothermic step and at least a part of the process energy in the endothermic step is introduced locally in the region of the opening.

18. The method of claim 3, wherein the hardening step includes an endothermic step and at least a part of the process energy in the endothermic step is introduced locally in the region of the opening.

19. The method of claim 4, wherein the hardening step includes an endothermic step and at least a part of the process energy in the endothermic step is introduced locally in the region of the opening.

20. The method of claim 16, wherein the hardening step includes an endothermic step and at least a part of the process energy in the endothermic step is introduced locally in the region of the opening.

21. The method of claim 17, wherein at least a part of the process energy in the endothermic step is introduced by targeted irradiation in the region of the opening, in particular with laser radiation.

22. The method of claim 18, wherein at least a part of the process energy in the endothermic step is introduced by targeted irradiation in the region of the opening, in particular with laser radiation.

23. The method of claim 19, wherein at least a part of the process energy in the endothermic step is introduced by targeted irradiation in the region of the opening, in particular with laser radiation.

24. The method of claim 20, wherein at least a part of the process energy in the endothermic step is introduced by targeted irradiation in the region of the opening, in particular with laser radiation.

25. The method of claim 17, wherein at least a part of the process energy in the endothermic step is introduced by ultrasound.

26. The method of claim 18, wherein at least a part of the process energy in the endothermic step is introduced by ultrasound.

27. The method of claim 19, wherein at least a part of the process energy in the endothermic step is introduced by ultrasound.

28. The method of claim 20, wherein at least a part of the process energy in the endothermic step is introduced by ultrasound.

29. The method of claim 10, wherein the material or material mix is amalgam.

30. The implant of claim 11, wherein the marker element comprises a material or material mix which is introduced into the opening by galvanic deposit and hardened there.

31. The implant of claim 30, wherein the material or material mix is sinterable and is hardened in the opening by sintering.

32. The implant of claim 12, wherein the marker element is joined and in particular welded to the material of the main body by the hardening process.

33. The implant of claim 13, wherein the marker element is joined and in particular welded to the material of the main body by the hardening process.

34. The implant of claim 12, wherein the opening and/or the marker element and/or the arrangement thereof with respect to the main body identify at least one property of the implant.

35. The implant of claim 13, wherein the opening and/or the marker element and/or the arrangement thereof with respect to the main body identify at least one property of the implant.

36. The implant of claim 14, wherein the opening and/or the marker element and/or the arrangement thereof with respect to the main body identify at least one property of the implant.